

3 (amended). A method according to claim ~~10~~¹, wherein the radiation absorbing dye is provided in at least one of the workpieces.

4 (amended). A method according to claim ~~10~~¹, wherein the radiation absorbing dye is provided on a substrate by moulding the substrate in a mould with an insert formed by or including the radiation absorbing dye.

5 (amended). A method according to claim ~~10~~¹, wherein the radiation absorbing dye is provided as a coating on a substrate.

6 (amended). A method according to claim ~~10~~¹, wherein the radiation absorbing dye is provided by coextruding the material with a substrate.

7 (twice amended). A method according to claim ~~10~~¹, wherein the radiation absorbing dye is exposed to radiation prior to positioning the workpieces together.

8 (twice amended). A method according to claim ~~10~~¹, wherein the radiation absorbing dye is exposed to radiation through one of the workpieces.

9 (twice amended). A method according to claim ~~10~~¹, wherein

the workpieces are made of plastics.

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B
10¹ (twice amended). A method of forming a weld between workpieces over a joint region, the method comprising:

exposing the joint region to incident radiation having a wavelength outside the visible range so as to cause melting of the surface of one or both workpieces at the joint region, and allowing the melted material to cool thereby welding the workpieces together, the method further comprising providing a radiation absorbing dye at the joint region in one of the workpieces or between the workpieces which has an absorption band matched to the wavelength of the incident radiation so as to absorb the incident radiation and generate heat for the melting process, the radiation absorbing dye being visually transmissive after welding.

12¹
11¹ (twice amended). A method according to claim 10¹, wherein the lower limit of the absorption band is above 700nm.

13¹
B 12¹ (twice amended). A method according to claim 10¹, wherein the absorption band defines the range 820-860nm.

14¹
14¹ (twice amended). A method according to claim 10¹, wherein the absorption band lies in the infrared range.

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B 15 (twice amended). A method according to claim ~~10~~¹, wherein the absorption band does not include the range 400-700nm.

16 (twice amended). A method according to claim ~~10~~¹, wherein the radiation is in the infrared range.

17 (twice amended). A method according to claim ~~10~~¹, wherein the wavelength of the incident radiation lies in the range 700-2500nm.

19.
20 (twice amended). A method according to claim ~~10~~¹, wherein the radiation is a laser beam.

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B 19.
21 (twice amended). A pair of workpieces which have been welded by a method according to claim ~~10~~¹.

C 22 (amended). A method of forming a weld between workpieces, comprising fabrics, over a joint region, the method comprising:

exposing the joint region to incident radiation having a wavelength outside the visible range so as to cause melting of the surface of one or both workpieces at the joint region, and allowing the melted material to cool thereby welding the workpieces together, the method further comprising providing a radiation absorbing material at the joint region in one of the

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B C workpieces or between the workpieces which has an absorption band matched to the wavelength of the incident radiation so as to absorb the incident radiation and generate heat for the melting process, the radiation absorbing material being visually transmissive after welding.

^{20'}
B⁴ 26 (amended). A method according to claim ¹~~10~~, wherein the workpieces comprise thin films.

28 (amended). A method of forming a weld between thermoplastic textile workpieces over a joint region, the method comprising:

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B C exposing the joint region to incident radiation having a wavelength outside the visible range so as to cause melting of the surface of one or both workpieces at the joint region, and allowing the melted material to cool thereby welding the workpieces together, the method further comprising providing a radiation absorbing material at the joint region in one of the workpieces or between the workpieces which has an absorption band matched to the wavelength of the incident radiation so as to absorb the incident radiation and generate heat for the melting process, the radiation absorbing material being visually transmissive after welding.

Add the following new claims:

C17 30. A method according to claim 26, wherein said thin films comprise polyester or PEEK.

B6 31. A method according to claim 22, wherein the radiation absorbing material is sandwiched between two workpieces.

32. A method according to claim 22, wherein the radiation absorbing material is provided in at least one of the workpieces.

33. A method according to claim 22, wherein the radiation absorbing material is provided on a substrate by moulding the substrate in a mould with an insert formed by or including the radiation absorbing material.

U 34. A method according to claim 22, wherein the radiation absorbing material is provided as a coating on a substrate.

35. A method according to claim 22, wherein the radiation absorbing material is provided by coextruding the material with a substrate.

36. A method according to claim 22, wherein the radiation absorbing material is exposed to radiation prior to positioning the workpieces together.

37. A method according to claim 22, wherein the radiation absorbing material is exposed to radiation through one of the workpieces.

B⁶
38. A method according to claim 22, wherein the workpieces are made of plastics.

39. A method according to claim 22, wherein the lower limit of the absorption band is above 700nm.

40. A method according to claim 22, wherein the absorption band defines the range 820-860nm.

C
41. A method according to claim 22, wherein the absorption band lies in the infrared range.

42. A method according to claim 22, wherein the absorption band does not include the range 400-700nm.

43. A method according to claim 22, wherein the radiation is in the infrared range.

44. A method according to claim 22, wherein the wavelength of the incident radiation lies in the range 700-2500nm.

45. A method according to claim 22, wherein the radiation is a laser beam.

46. A pair of workpieces which have been welded by a method according to claim 22.

47. A method according to claim 28, wherein the radiation absorbing material is sandwiched between two workpieces.

48. A method according to claim 28, wherein the radiation absorbing material is provided in at least one of the workpieces.

49. A method according to claim 28, wherein the radiation absorbing material is provided on a substrate by moulding the substrate in a mould with an insert formed by or including the radiation absorbing material.

50. A method according to claim 28, wherein the radiation absorbing material is provided as a coating on a substrate.

51. A method according to claim 28, wherein the radiation absorbing material is provided by coextruding the material with a substrate.

52. A method according to claim 28, wherein the radiation

absorbing material is exposed to radiation prior to positioning the workpieces together.

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B 53. A method according to claim 28, wherein the radiation absorbing material is exposed to radiation through one of the workpieces.

54. A method according to claim 28, wherein the lower limit of the absorption band is above 700nm.

55. A method according to claim 28, wherein the absorption band defines the range 820-860nm.

C 56. A method according to claim 28, wherein the absorption band lies in the infrared range.

57. A method according to claim 28, wherein the absorption band does not include the range 400-700nm.

58. A method according to claim 28, wherein the radiation is in the infrared range.

59. A method according to claim 28, wherein the wavelength of the incident radiation lies in the range 700-2500nm.